JAPAN

EDICT OF GOVERNMENT

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JIS B 9124 (1997) (English): Rice hulling rubber rolls

安 *The citizens of a nation must honor the laws of the land.* 倂

Fukuzawa Yukichi

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JIS

JAPANESE
INDUSTRIAL
STANDARD

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JIS B 9124 : 1997

Rice hulling rubber rolls

ICS 65.060.50; 83.140.99

Descriptors : rice, cereals, cereal products, rollers, natural rubber, synthetic rubber, chaff

Reference number : **JIS B 9124 : 1997 (E)**

Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of International Trade and Industry through deliberations at Japanese Industrial Standards Committee in accordance with the Industrial Standardization Law. Consequently, JIS B 9124:1995 is replaced with JIS B 9124:1997.

Date of Establishment: 1963-03-01

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In the event of any doubts arising as to the contents, the original JIS is to be the final authority.

Rice hulling rubber rolls

1 Scope This Japanese Industrial Standard specifies rice hulling rubber rolls used for rice huller (hereafter referred to as "rolls").

Remarks: The units and numerical values given in { } in this Standard are based on the traditional units and appended for informative reference.

2 Normative references The following standards contain provisions which, through reference in this Standard, constitute provisions of this Standard. The most recent editions of the standards indicated below shall be applied.

JIS B 0401 *System of limits and fits*

JIS G 5501 *Grey iron castings*

JIS K 6251 *Tensile testing methods for vulcanized rubber*

JIS K 6253 *Hardness testing methods for vulcanized rubber*

3 Quality

3.1 Appearance Rolls shall comply with the following each item:

a) The thickness is uniform.

b) The rubber and the core adheres to each other sufficiently.

c) There are no flaws, cavities, inclusion of foreign matters or other defects harmful to use.

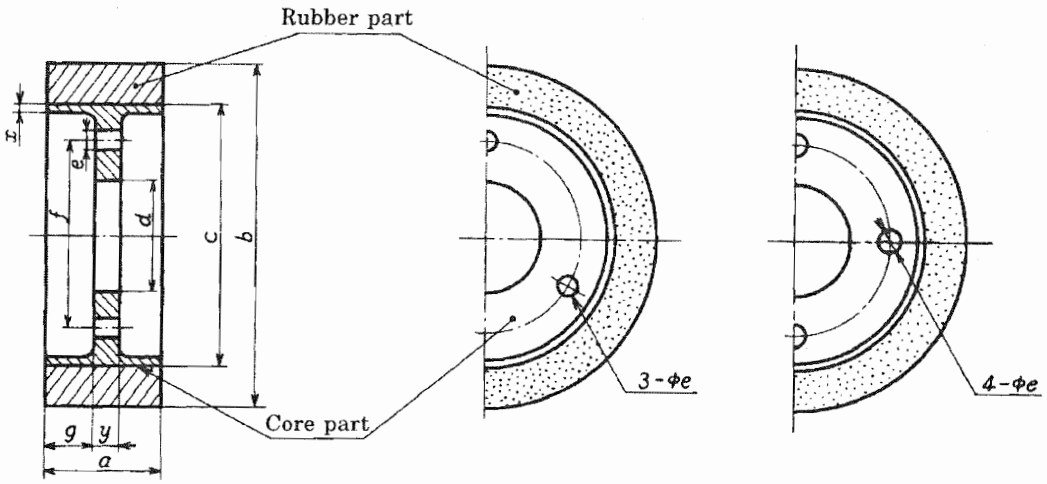
3.2 Performance Rubber part of roll shall be tested according to **6**, and comply with Table 1.

Table 1 Performance

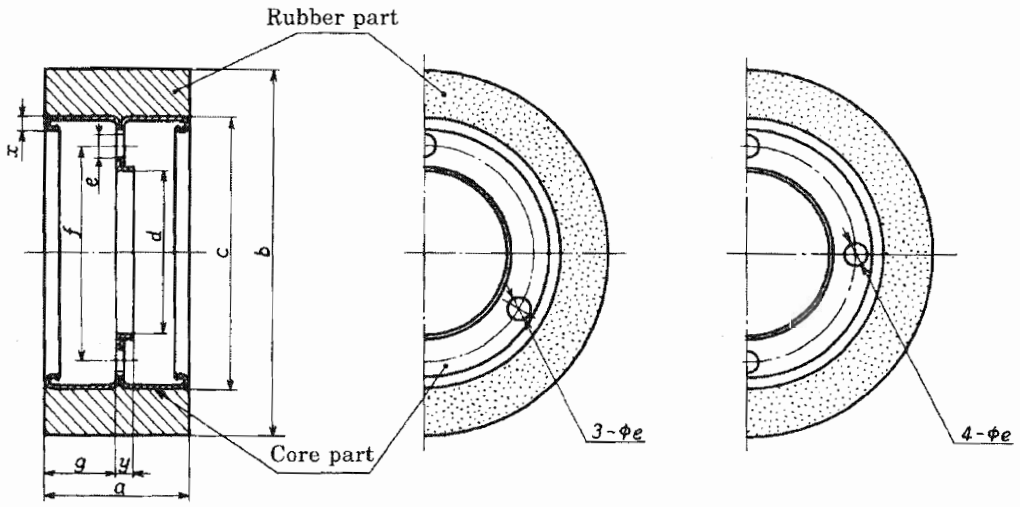
Item		Unit	Performance
Hardness by durometer (A)		—	80 to 98
Tensile strength		MPa {kgf/cm^2}	10 {102} min.
Elongation at break		%	200 min.
Heating test	Hardness by durometer (A)	—	72 min.
	Decrease of hardness by durometer (A)	—	10 max.

4 Shape and dimensions The roll shall consist of rubber part and core part and shape and dimensions of each part, be in accordance with Fig. 1. However, the dimensional permissible deviations shall be in range shown in Table 2.

Remarks: The measuring method for dimensions shall be subjected to the agreement between the parties concerned with delivery.



A In the case of core part made of cast iron or aluminium alloy die casting



B In the case of core part made of steel plate

Fig. 1 Shape and dimensions

Unit: mm

Type	*a*	*b*	*c*	*d*	*e*	*f*	*g*	*x* (2)	*y* (2)
Large 100	254.0	254.0	204.0 (206.0) (1)	116.05	4−ϕ12.0	142.0	127.0	3 min.	5 min.
Large 60	152.4	222.0	181.0	114.30	3−ϕ12.0	140.0	76.2		
Large 40	101.6						50.8		
Medium 50	127.0	165.0	130.0	73.02	3−ϕ10.5	90.0	63.5		
Medium 40	101.6						50.8		
Medium 30	76.2						38.1		
Medium 25	63.5						31.8		
Small 40	101.6	153.0	120.0				50.8		
Small 35	88.9						44.5		
Small 30-1	76.2						38.1		
Small 30-2							36.0		
Small 30-3			116.0	60.0		82.0	46.0		
Small 25	63.5		120.0	73.02		90.0	30.0		

Notes (1) This applies to the core part made of steel plate.

(2) In the case of core part made of steel plate or of aluminium alloy die casting, when the strength is equivalent or superior to that made of cast iron, it may be not more than the numerical value of this Table.

Fig. 1 Shape and dimensions (concluded)

Table 2 Dimensional permissible deviations

Unit: mm

a	*b*	*c*	*d*	*e*	*f*	*g*
$^{+0.3}_{-0.5}$	±1.0	±0.3	(3)	$^{+0.3}_{-0.2}$	±0.5	±0.3

Note (3) The permissible deviation of *d* part shall be in accordance with F8 of **JIS B 0401**. However, for type large 100, H8 shall be applied.

5 Using materials

5.1 Rubber The rubber shall be so compounded as to be suitable for using purposes, and uniform in composition.

5.2 Core The core shall be made of FC150 of **JIS G 5501** or material equivalent or superior thereto.

6 Test methods

6.1 Hardness Measure the hardness (A) at optional 5 places of roll side face of sample according to the method specified in **5** of **JIS K 6253**, and take the average value as test result.

6.2 Tensile strength and elongation at break Test according to the method specified in **JIS K 6251** by using a dumbbell type No. 1 test piece. However, take the test pieces from the plate state rubber taken respectively in circumferential direction of roll face from three layers of outer layer part, intermediate layer part and inner layer part (but, except the ebonite layer part), obtain measured value for each layer separately, and take the lowest numerical value of it as test result.

6.3 Heating test Take a specimen of suitable size from the sample, and measure the hardness by durometer according to the method specified in **5** of **JIS K 6253**. Next, put it into an air thermostatic tank or water thermostatic tank at 80 °C±2 °C for 1 h, after taking out, immediately measure again the hardness by durometer with taking care so as not to change the temperature as far as possible and calculate the decrease of hardness by durometer according to the following formula:

$$A_H = H_1 - H_2$$

where, A_H : decrease of hardness

H_1 : hardness of sample before heating

H_2 : hardness of sample after heating

7 Marking Rolls shall be marked on each piece with the type and manufacturer's name or their abbreviation.

Related standard:

JIS H 5302 *Aluminium alloys die castings*

Errata for JIS (English edition) are printed in *Standardization Journal*, published monthly by the Japanese Standards Association, and also provided to subscribers of JIS (English edition) in *Monthly Information*.

Errata will be provided upon request, please contact:

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